/435 cont./

301 Finally, they create a popular oddity by alternating a small piece of black bone and a small piece of white. They also have ornamental chains consisting only of small black pieces. They blacken them by saturating them with fish oil and leaving them in hot ashes for some time. The latter varieties are all known as hátus (118).

118. Hyades (q):349 mentions only one of these types: "One type of necklace very commonly worn consists of small cylinders of bird bone, evenly cut and strung" /translated from French/. One does see this type very often, as a matter of fact.

301 The ornament for the neck that is considered the most
321 beautiful is ŭpúka. To make it they gather pea-sized shells of Photinula violacea, known as son ŭpúka. They scrape off the rough and dirty calcareous surface layer by rubbing the shells with wet sand between both hands or by placing them in the pebbles on the edge of a shallow brook that has a strong current, which produces the same scouring action. This gives the little snail shells a faint opalescent sheen on a sky-blue or light pink background. They make a small hole near the outer edge by rubbing the snail shell on a rough stone. First they place all the little shells next to each other according to size, beginning with the smallest up to the largest, but from the beginning they choose them so that the difference in size between the two extremes is
301 very slight. To string them they need a cord, asína, braided with three tendon fibers and laid double (Fig. 23). They thread
[297] the lower strand through the hole of each small shell and secure the upper one with a thread running spirally around the two and pressing each individual shell tight against the preceding one (Fig. 24). This ornament /436/ is arranged in two to five equal circles, depending on its length. At one point a short thread is wrapped around all the circles to keep them together. This is the way the ŭpúka is worn at the neck. If they decide to make only a single strand of small shells, they put the largest one in the center and arrange the others very accurately according to size, so that the smallest ones finish off the two ends (119).

[299] 119. This characteristic ornament of the Yamana,

[Text continues on p.105-Analyst]

1: Gusinde--104 E-5 (1918-1924) 1937 SHE Yahgan SHE

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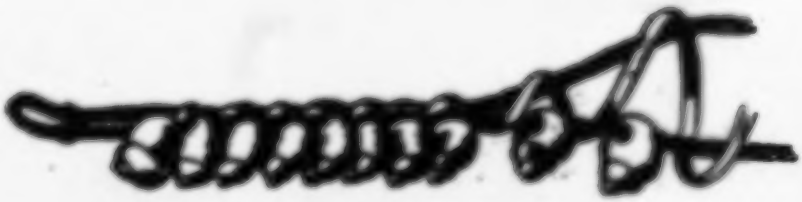

Fig. 33. Small Necklace. Natural size.

Fig. 34. String of Little Snail Shells

/473 cont./

411 284 This large bone point requires a two-fold fastening, if we may express it thus. Its tang is pressed into the open notch of the wooden shaft. Since it is wedge-shaped and the notch is narrow, it is jammed in tightly. In spite of that, a narrow strip of leather, tuwarárum, is wrapped around it about nine times. This strip has previously been well soaked and is tightly lashed, whereupon the free end is knotted. When it dries, this lashing is even more constricted and becomes all the more secure. There is by no means a special attempt to secure the spearhead in the notch; in fact, they expect it to slide out at the proper moment. Hence a second fastening is intended to keep the spearhead joined to the shaft and freely movable. Over the tang of the bone spearhead, that is, around the lower part of the notch, they place a leather strap of sealskin about 12 millimeters wide and knot it. The other end is knotted securely on the wooden shaft itself, not more than 70 centimeters from the notch. The strap is not taut, and they purposely let it hang loosely. Before the spearhead is pressed into the notch, the strap is twisted around its longitudinal axis until it is rolled up lengthwise and has a strong tendency to unwind. It is kept from doing so as soon as it is secured at the top. Sometimes this short piece of strap hangs flat and loose.

411 225 Only now is the weapon ready for the hunter to use. It is surprisingly functional. Since it is hurled, the heavy wooden shaft gives it ample force. When the bone point has penetrated the body of a seal or related animal, the latter immediately tries to shake off the burdensome foreign body. In one way or another the spearhead will detach itself from the shaft. Immediately the latter will twist somewhat slantwise and will keep on turning in the water until the rolled-up strap has uncoiled itself. The strap was purposely fastened, not in the middle part of the shaft, but on the upper third. After the shaft has detached itself from the spearhead, it does not stand exactly at right angles, but at a more or less acute angle from the direction in which the animal strains forward. This averts the danger of its snapping and yet acts as a considerable brake. Sometimes floating algae get tangled up in the shaft and the thong, which notably increases the resistance in the water. The wounded animal is seriously hindered in quick flight or deep diving, and the successful hunter can

§ [For the harpoon.— Analyst]

/474 cont./

411 824 grow perfectly straight and have the great advantage of being heavy. They do not flourish on Beagle Channel, however, except in one or two places in the west (179), and for most of the Yamana they are

179. On my fourth expedition I had definite proof of specimens of Libocedrus tetragona in Puerto Edwards on the southern shore of Brecknock Peninsula. This is the southern boundary for this species. Skottsberg (g):28 suspects that it extends somewhat farther south, namely, to Isla Chair in Darwin Sound.

[37]

simply inaccessible. Hence one sees all of them carrying merely a shaft made from the evergreen beech, Nothofagus betuloides, which is uniformly octagonal. Furthermore, one can /475/ observe at the average cross-section a rectangle of about 35 millimeters in width and 28 millimeters in height with the four /Fig. 35 appears here/ corners removed, producing the octagonal form. Shafts with six uniform sides are not as common as those mentioned above.

411 225 The narrow slit at the upper end of this large harpoon is, of course, also meant for a bone point which is jammed into it; a narrow leather strip is

[284]

Fig. 35. The Large Harpoon.

/473 cont./

411 225 would around it tightly in about ten close lashings. If one of the pinnipeds is to be harpooned, even if it is the mighty male of the sea elephant, [illegible] (Macrorhinus leoninus) /Fig. 9 /Ed., see foreign text, untranslated portion/, the hunter chooses a bone point of medium length with a single large tooth or the still shorter one with two large barbs /Fig. 36/ (180). The latter

180. Hyades (p) 356 mistakenly maintains: "It is very rare to see harpoon points in bone, movable, with a notch on either side in the form of a spearhead" /translated from French/. This form is no less frequently made and used than the medium-sized and very large bone point with a single tooth.

measures about 15 centimeters. Under their thick leather skin the above-mentioned animals carry a thinner layer of fat than whales do under their epidermis, but the bone point is supposed to penetrate as deep as possible into the muscular layer where the two lateral teeth function more precisely as barbed hooks. This is also the reason why a bone spearhead more than 40 centimeters long with a sharp tooth is preferred for harpooning whales. A shorter bone point would, for the most part, stick fast in the layer of fat and therefore be almost ineffectual.

225 411 284 The thing that conspicuously distinguishes this weapon from the so-called small seal-harpoon is a long leather rope of 30 or more meters. It is evenly cut from the freshly skinned hide of a pinniped and is always left rolled up. One end is securely fastened to the notch /426/ of the spearhead. From here it is drawn down along the shaft and held there with two or three loose cross-loops. In aiming and throwing, the man holds the shaft approximately in the center, and the wreath of coiled rope hangs on his left forearm (181). /Fig. 36 appears here./ When he has hit the animal,

181. Snow (e) II, 361 says: "To the bone is attached a string hide of various lengths. In using the spear, they hold it nearly by the middle, and with the right eye cast along it, they dart it with great precision" /cited in

L: Gamble--164 8-8 (1810-1936) 1937 NNB Tahgan NNB

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English/. Bowe's (sc).158 description is more accurate. ~

the bone point and the shaft remain attached for a time, but it is much more disadvantageous for the wounded animal if it must drag along the loosened shaft which moves irregularly. With bearing movements of the rope -- that is why it is attached to the shaft with cross-loops -- the man succeeds in detaching the shaft from the bone point that is stuck in the animal. Then he gives the animal as much rope as possible; after it has grown tired or lost a great deal of blood, he draws it toward him slowly and gently, at the same time easily rolling in the rope.

Fig. 86. Twin-barbed Harpoon Point. Two-thirds natural size.

It hardly seems possible that the men can in such an easy manner influence the direction taken by the escaping seal with the loose shaft which is directly beside the harpoon point sticking in the flesh. Even if one or the other of the cross-loops on the shaft should be loosened or shift, the shaft never stands at right angles, but at an acute angle to the direction of movement. This prevents it from breaking when the wounded animal violently storms forward.

The hunter usually throws off this weapon as soon as he

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is on firm ground. If he uses it while he is in the canoe the greatest caution is required, especially when a whale has been wounded with it. After the animal has been hit with a lucky throw, some men succeed in leaping on shore or on a rock while holding onto the end of the long leather rope or wrapping it around their body. Now they have a firm foothold and the canoe is out of danger. Sometimes the canoe can get close to the wounded animal and another person gives it the fatal stab. With the long leather rope of the harpoon several men may even pull a floating dead whale to shore.

/486 cont./

223 above, they also use several implements which we shall briefly
226 characterize here and describe in greater detail below. These implements have been brought under one heading in this section. They help the men and women to obtain the smaller representatives of Fuegian fauna, namely, birds and the so-called lower animals, such as mussels and crabs.

C. The large-line.

223 This is a construction that is used for inconspicuous mass capture. The Yamana call it ufka. I believe the most suitable designation is large mare-line. It could also be called "mare-trap." It is used more often by the Halakwulup than by our Fuegians. Hyades (q).359 correctly reminds us that it was observed by Bougainville in the year 1769 on the shores of the Strait of Magellan.

223 The foundation, so to speak, of this large mare-line is a
223 thick, braided cord of long guanaco sinews. Since few /486/ people can obtain this, they content themselves with whale sinews and make a firm braid with three strong strands. This is saturated with fat and repeatedly greased, for it often lies on the damp earth for a long time and must be protected from rotting.

223 On the long cord at intervals of about 60 centimeters, there
224 are tied as many knotted loops, known as kaf-ef, as the length of cord will permit. Each of them consists of a single strip of whalebone about four millimeters wide, the edges of which must not fray since this would interfere with the free movement of the small loop-knot at the upper end. The other end, after being drawn through the loop, terminates in a simple knot and is fastened to the long cord. All the knotted loops are placed on the same side of the cord. Each one, when it is entirely loose, has a diameter of nearly 30 centimeters.

223 Actually, therefore, the large mare-line ufka, is, following Hyades (q).304, a "game of snares" /translated from French/ (Fig. 58). Martial:196 calls it "a noose" /translated from French, lacet/, which he describes as "a rope of seal tendons on which

/486 cont./

223 running loops of whalebone are placed at intervals" /translated from French/ (196).

196. There is a good illustration in Hyades (q):Plate XXX. Lothrop (b):157 calls attention to the large snare-line of the Selk'nam; he overlooks the fact that this differs in the arrangement of the whalebone running-loops of our Yamana.

It is best suited to catch wild geese, which prefer a certain locality. Here this snare-line is spread out on the level ground, pulled taut, and finally tied at either end to a post driven into the ground. It is of little or no use for catching other birds. Hyades (q):304 expresses himself too vaguely when he says, "this snare is used to catch large birds" /translated from French/. That is also the reason why only a few Yamana families actually own and use this article, since it is laborious to make and must be very carefully stored. Thus it represents a considerable value.

β. The Snare-rod

Whereas the long snare-line serves to catch masses of birds, another implement which I call the snare-rod catches them singly. With this the Indian stalks chiefly geese and ducks, but also cormorants and penguins. Hence one sees this akămuš, as the implement is called, in almost every family.

It consists of two parts. A light, long rod as a shaft, known as yéyakĕrĭ, with a rounded, smooth surface is nothing more than [824] a young trunk of Nothofagus betuloides or Maytenus magellanica, which has been treated by a long process of scraping. It must be very light, hence Drimys is not suitable. The average diameter is evenly scaled down /487/ to 15 millimeters. This shaft tapers a very little at either end and very gradually. The longer it is, the more suitable.

223 ●284 At the top a large noose of whalebone is attached, and thus the whole thing appears, as Hyades (q):359 expresses it, like "a

/487 cont./

223 284 long, slender shaft furnished with a running loop of whalebone" /translated from French/. The end piece is attached to the tip of the shaft by a knot in the lashing of sinew. It is surprising that this whalebone noose, kɛ̄ʷ ɛ̄f, is put together with two pieces, a long one and a short one. The two run side by side for a few centimeters and are lashed with sinews; the short one ends in a small loop-knot. We also find this same overlapping [171] in every one of the whalebone loops on the long snare-line of the Selk'nam (Vol. I, 283), whereas on that of our Yamana each whalebone loop is one strip only (Fig. 59). A kɛ̄ʷ ɛ̄f consisting of two parts is more effective and more durable; our Yamana are convinced of that. But why they do not use these two-part loops on the long snare-line no one could tell me. Probably the people avoid the greater effort, since the work of making a snare-line is laborious enough.

223 We need not explain specifically how this snare-rod is used. It is, of course, put forward unnoticed by a man hidden in a suitable spot, drawn over the head of a bird, and immediately pulled in with a sharp jerk. The principle of the noose is exactly the same as in the case of the long snare-line. The natives even use a single whalebone noose without any kind of shaft to catch birds. Herewith we have adequately described and characterized the threefold way in which the whalebone snare is used by the Yamana.

Y. Mussel Fork, Mussel Breaker, Crab Fork

226 [262] The shellfish of the sea have the same importance for the diet of our Fuegian as bread, for instance, has for the European. Many of them he can gather on the beach, others he must take out of the water. The two types of mussels which are found there, namely ɛ̄ʷ uf (Mytilus chilensis) and kɛcoin (Mytilus edulis), occur in vast quantities. They are larger and tastier the more abundantly they are covered with water even at lowest ebb tide and the stronger the current is that swirls around them back and forth. It would be impossible to pry these animals loose with one's hand, as one can, for instance, the smaller and less tasty ones that every ebb tide uncovers.

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227 283 [824] Two types of fishline are used, and they differ from one another only in the actual line. One is nothing more nor less than a small, pencil-thick stem of the large brown alga (Macrocystis pyrifera) from which, with the fingernail, the branches are removed so close to the stalk that it seems quite smooth (Fig. 63). After each use it is rolled up; hence it dries very slowly and does not readily become brittle. When it is needed, 20 minutes in the water will suffice to soften it up completely and make it flexible once more.

The other fishline is braided out of three thin filaments of sinew. Like the one mentioned first, it is eight and more meters long (Fig. 64). To make it last longer, it, too, is rolled up, but into a tight ball, after each use (199). The latter is incomparably more durable and proves to be much more trustworthy when it is hauled in.

199. Bridges (MM:III, 115; 1869) briefly describes both types. Hyades (g):38 repeated: "The lines are made partly out of dried seaweed [Macrocystis pyrifera], partly out of seal tendons, and are lowered with a stone tied to them." See Krickeberg: 320 and Lovisato (b):142.

227 284 Both lines terminate in a loop with a running knot made out of a quill. When it is opened up, it measures about 12 centimeters. Since the actual line ends in a small knot, the upper end of the quill is joined on in front of the knot. Along its smooth surface the running loop moves without any friction. As bait it holds a small piece of seal meat or a small mussel.

227 Since the bait must sometimes be sunk to considerable depths, a sinker is indispensable. The natives use any stone with flat sides and irregular edges. It is about three centimeters high. The line is wound around it, about eight centimeters above the loop. In the central Yamana regions the natives sometimes select the round black stone tefi, but few women have any of them handy.

226 Every Indian woman is extraordinarily skillful in fishing. Since she does not use an actual fish hook, she waits until the fish has swallowed the bait and only then very gently pulls up the

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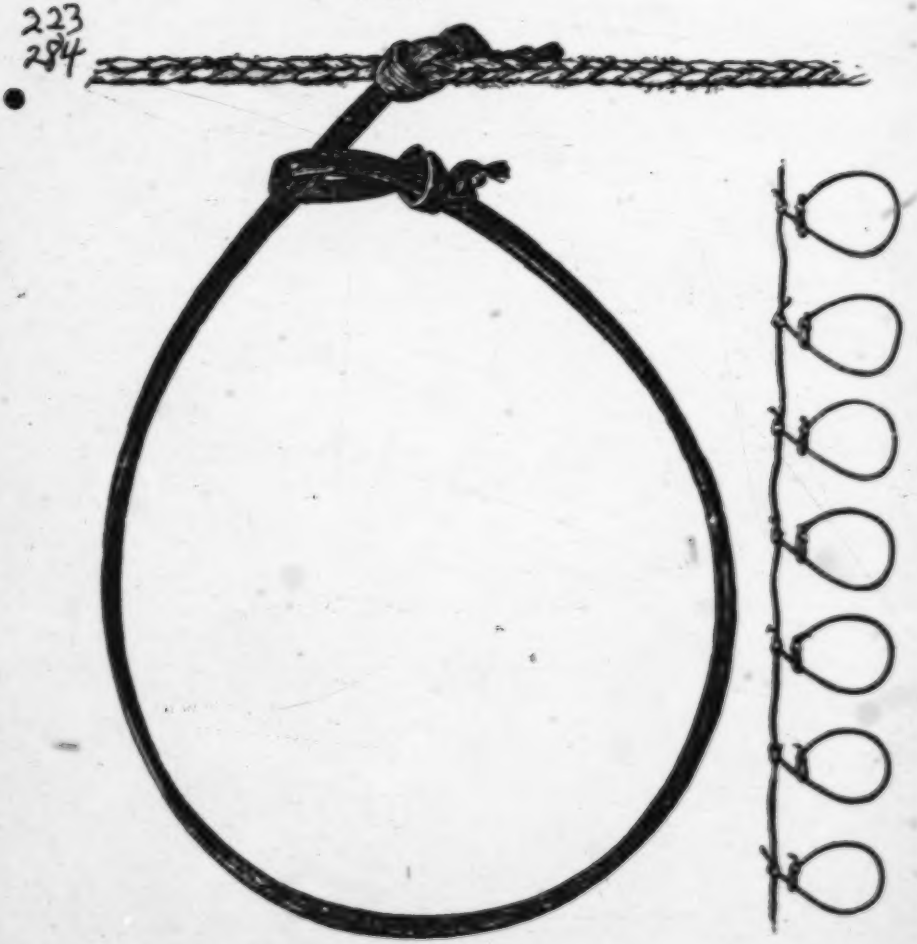

Fig. 59. The Large Snare-line. Two-thirds natural size.

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Fig. 60. The Noose-rod.
One-half natural size.

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

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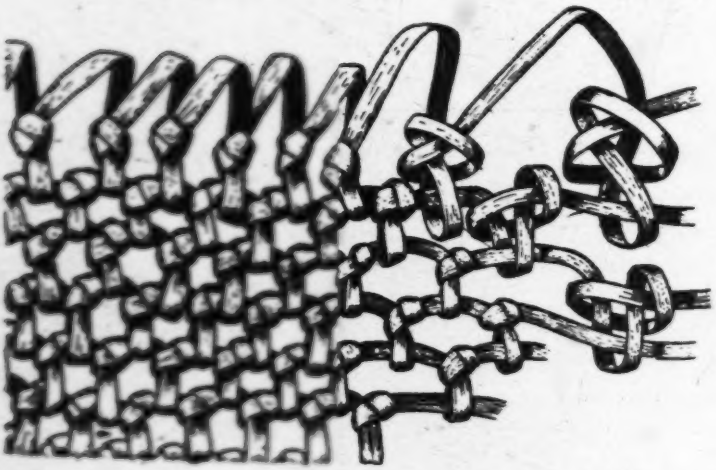

FIG. 65.—Detail of *guilchim* basket. Height, 2 in. (14/2312)

TOOLS

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Yahgan tools are just as primitive as the Ona tools, although adapted to different uses. The Yahgan have a constant tendency when making something to pick up the first object that comes to hand—a bit of shell, a fire-flaked stone—and employ it, rather than to take the trouble to get steel tools which would better serve their purpose.

1. SCRAPER.—The old-time Yahgan scraper (*lu°wĕ'na*) was a mussel-shell blade (*hálaf*) set on a stone handle (*áwi*). The shell blade was not the ordinary mussel-shell, but a giant variety (*chiamánka*), four or five inches in length, which now grows on the beaches of the outer islands toward the Antarctic. Formerly, however, it must have flourished on Beagle channel, as many examples were found in the interior of a shellheap at Harberton. To set this shell blade on the stone handle, the edges of the base of the shell were carefully broken away in order to reduce the curve and make the blade lie flat against the stone. However, the blade could not be attached directly to the stone, or it would have broken too easily, hence it was bedded on a small bunch of shredded barberry wood (*chálarr* [1]) or a wad of moss (*hánakóhl*). These two

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[1] This word was obtained from a Lennox islander. I am not certain whether it means "shredded barberry" or whether it is a dialectic variant of the central

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

variant forms are seen in pl. x, *a*, *b*. For lashings on scrapers the Yahgan used either a seal-hide thong (*tuwawáru*, pl. x, *a–c*) or else a braided whale-sinew line (*tápim*, pl. x, *d*) such as was employed for fishing.

Since the European settlement the natives have substituted a steel blade (*hárfkar*) for the shell whenever possible, and the resultant tool is called *wána*. It is illustrated in fig. 66, *a*. They

FIG. 66.—Yahgan scraper and whetstone. Length, 11 and 9¼ in. (14/2367, 2325)

now also set the steel blade in a split wooden handle in the same fashion as the Ona, as can be seen in pl. x, *c*.

The scraper was the most important tool to the Yahgan and served a great variety of purposes.[1] Owing to the weight of the stone handle it could be used not only for scraping but also as a serviceable hand-ax. When the shell blade became chipped or dull it was sharpened on a stone (*chípi*) with a long flat surface (fig. 66, *b*). In type this scraper corresponds to the Ona wood scraper (fig. 25, *a*).

In the old days before steel was available, the Yahgan are said to have used a tool like the transverse Ona flesh-scraper (fig. 25, *b*). This was denied by Yahgans whom I questioned, but was affirmed by Mr. William Bridges, whose statement was supported by the discovery of ancient stone blades apparently designed for transverse hafting (fig. 104, *b*, *c*). The abandonment of the transverse scraper may be due partly to the use of steel, but also may be accounted

[1] Yahgan *chélia*, which means "barberry" in general (*Berberis ilicifolia*). Shredded barberry was also employed as a towel after bathing.

3: Lothrop E-5 (1924-1925) 1928
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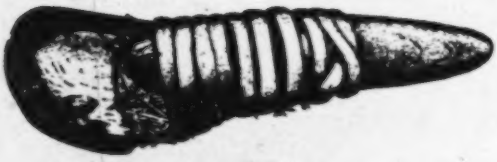
a



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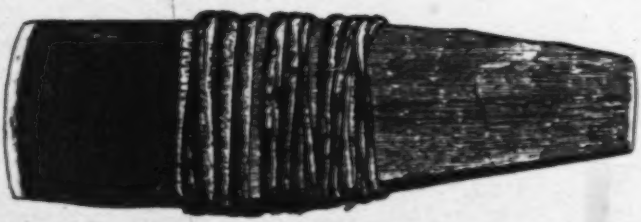

c

d

YAHGAN SCRAPERS

a, b, d, PRIMITIVE TYPE; LENGTH, 14, 10½, 9 IN. (14/2304, 2308, 2303). c, MODERN TYPE; LENGTH, 9 IN. (14/2306)

[p. 140-A]